CLAIMS

1. An optical fiber tape core comprising: an optical fiber core assembly with plural optical fiber cores two-dimensionally arranged in parallel with each other; and a coating layer formed of silicone rubber and arranged on at least one side of said optical fiber core assembly, said silicone rubber forming said coating layer.

2. The optical fiber tape core according to claim 1, wherein said silicone rubber forming said coating layer has a hardness of from 20 to 90 and a tensile strength of from 15 to 80 kgf/cm^2.

3. The optical fiber tape core according to claim 1, wherein coating layers are arranged on both sides of said two-dimensional assembly of said plural optical fiber cores.

4. A process for fabricating an optical fiber tape core by coating plural optical fiber cores all together, which comprises: bringing at least one nozzle close to surfaces of said plural optical fibers aligned in parallel with each other on a two-dimensional flat surface; and then, while delivering silicone rubber from said nozzle, causing said nozzle to undergo a relative movement in a direction of axes of said optical fibers such that said plural optical fibers are coated all together to form a coating layer.

5. The process according to claim 4, wherein said nozzle has a tubular shape.

6. The process according to claim 4, wherein said relative movement of said nozzle is controlled in speed.

7. The process according to claim 4, wherein said relative movement of said nozzle is controlled in distance.

8. The process according to claim 4, wherein the coating material delivered through said nozzle is controlled in delivery rate.

9. A process for fabricating an optical fiber tape core by coating plural optical fiber cores all together, which comprises: applying silicone rubber onto said plural optical fiber cores arranged on a two-dimensional flat surface; and with a shaping jig having a shaping groove and being arranged such that said plural optical fiber cores are located in said shaping groove or are located underneath in proximity of said shaping groove, causing said forming jig to undergo a relative movement in a direction of axes of said optical fiber cores such that said silicone rubber is shaped to form a coating layer.

10. The process according to claim 9, wherein said shaping groove is rectangular in cross-sectional shape.

11. The process according to claim 9, wherein said shaping jig is moved while controlling said relative movement in speed with respect to said optical fiber cores.

12. A process for fabricating an optical fiber tape core by coating plural optical fiber cores all together, which comprises: arranging said optical fiber cores on a two-dimensional flat surface; and with a shaping jig having a shaping groove provided with a through-hole for feeding silicone rubber and being arranged such that said plural optical fiber cores are located in said shaping groove or are located underneath in proximity of said shaping groove, causing said shaping jig to undergo a relative movement in a direction of axes of said optical fiber cores such that with said silicone rubber fed into said shaping groove from said through-hole, said optical fiber cores are coated and shaped to form a coating layer.

13. The process according to claim 12, wherein said coating is performed while controlling in feed rate the coating material fed from said through-hole of said shaping jig.

14. The process according to claim 12, wherein said shaping groove is rectangular in cross-sectional shape.

15. The process according to claim 12, wherein said shaping jig is moved while controlling said relative movement in speed with respect to said optical fiber cores.

16. A process for fabricating an optical fiber tape core by coating plural optical fiber cores all together, which comprises the following steps: mounting said optical fiber cores in alignment with each other on a two-dimensional flat surface; applying silicone rubber onto said two-dimensional flat surface such that said two-dimensional surface with said plural optical fiber cores mounted therein is coated with said silicone rubber to form a coating layer; and peeling off said plural optical fiber cores from said two-dimensional flat surface to separate, from said coating layer on said two-dimensional flat surface, only a part thereof located on said optical fiber cores.

17. The process according to claim 16, wherein only some of said coated, plural optical fiber cores are peeled off from said two-dimensional flat surface.

18. The process according to any one of claims 4, 9, 12 and 16, wherein a coating layer formed of silicone rubber having a hardness of from 20 to 90 and a tensile strength of from 15 to 80 kgf/cm^2 is formed.

19. The process according to any one of claims 4, 9, 12 and 16, wherein said two-dimensional flat surface is provided with an adhesive layer for temporarily holding said optical fibers in place on said two-dimensional flat surface.

20. The process according to any one of claims 4, 9, 12 and 16, wherein said two-dimensional flat surface is provided with a groove for aligning said optical fiber cores on said two-dimensional flat surface.